

REMARKS

The rejections under 35 U.S.C. § 103(a) of:

Claims 1-13 and 16 as unpatentable over WO 02/056116, as evidenced by U.S. 2004/0053155 A1 (Emoto et al), combined with U.S. 6,037,090 (Tanaka et al) or JP11-231572 (JP '572), and

Claims 14 and 15 as unpatentable over U.S. 5,430,526 (Ohkubo et al) combined with Emoto et al and Tanaka et al or JP '572,
are respectfully traversed.

The Examiner finds that, for example, "acrylic resins" in the Markush group for the polymer dispersant in Claim 1 herein is met by the disclosure in Tanaka et al of their dispersant polymer being, for example, a derivative, including a graft or block copolymer of ϵ -caprolactone and another monomer, which monomer can be, for example, an acrylic ester (paragraph bridging columns 7 and 8, and succeeding paragraph). Applicants disagree, and continue to maintain patentability over the combination of prior art relying on Tanaka et al. Nevertheless, the rejections relying on Tanaka et al are moot, as polycaprolactones are excluded from the polymer dispersant Markush group.

The Examiner relies on the disclosure in JP '572 of a polymer dispersant and a synergist which the Examiner finds are inclusive of the polymer dispersant of Claim 1 herein and the pigment dispersion auxiliary agent of Claim 3 herein, respectively. The Examiner holds that it would have been obvious to use these materials for their functions in Emoto et al.

In reply, JP '572 is described in the specification herein at page 5, lines 7-13, as disclosing a toner having a colorant dispersed by a particular synergist and a polymer dispersant but that a colorant in a liquid cannot be dispersed sufficiently. Applicants expand upon this description below.

In JP '572, the colorant and polymer dispersant (and synergist) are dispersed in a solvent, i.e., attaching the dispersant (and the synergist) to the colorant, and this dispersion is then mixed with a binder resin [0031]. Thus, the colorant is not dispersed in a resin, and is not so stably dispersed, as required by the present invention. This lack of stable dispersion is proved in JP '572, which discloses that the color material dispersion is preferably dispersed again with a high-speed shearer, etc. lest the color material agglutinate when mixing the color material dispersion and the binder resin [0032].

In contrast to JP '572, the masterbatch (MB) of the present invention is prepared by kneading the resin and colorant with a pigment dispersant (and optionally a synergist). Not only is the dispersant (and the synergist) attached to the colorant, but the colorant is dispersed in the resin.

A masterbatch colorant used in the present invention does not agglutinate in an oil phase and is stably dispersed in the masterbatch. The colorant is not drawn to the surface of a toner; the resultant toner includes a uniformly-dispersed colorant.

Emoto et al's masterbatch is prepared by kneading a resin and a colorant in the absence of a dispersant. The colorant is covered with the resin owing to the shearing by kneading, and thought to be well dispersed in the resin, but not as well as in the present invention. However, when the masterbatch of Emoto et al is used for the toner prepared by a wet method in the present invention, the masterbatch is dissolved in a solvent once in the process of preparing a toner and the dispersion status of the colorant is thought to collapse. The dispersion status of the masterbatch of the present invention does collapse by virtue of the presence of the polymer dispersant in the preparation of the masterbatch.

Without the present disclosure as a guide, one of ordinary skill in the art would not have combined Emoto et al with Tanaka et al or JP '572. But if combined, the result would not be the presently-claimed invention since neither Tanaka et al nor JP '572 disclose or

suggest the use of a polymer dispersant to stably disperse a colorant **in a resin** in the production of a masterbatch, prior to using the masterbatch to prepare a toner. Rather, if combined, the dispersant of Tanaka et al or JP '572 would be used to disperse a colorant in a solvent, not in a resin.

For all the above reasons, it is respectfully requested that the rejections be withdrawn.

The rejection of Claim 16 under 35 U.S.C. § 112, second paragraph, is respectfully traversed. Indeed, the rejection is now moot in view of the above-discussed amendment. Accordingly, it is respectfully requested that the rejection be withdrawn.

Regarding paragraph 3 of the Office Action, since the previous amendment was submitted with an RCE, any List of Related Cases submitted therewith would have been proper. It would have elevated form over substance to have to resubmit the Lists of Related Cases that were filed on September 9, 2004 and September 23, 2004, even if the mechanics of their original submission was improper. Therefore, the Examiner is respectfully requested to acknowledge consideration of these Lists of Related Cases.

Applicants respectfully call the Examiner's attention to the Information Disclosure Statement (IDS) filed March 9, 2007. The Examiner is respectfully requested to initial the Form PTO 1449 submitted therewith, and include a copy thereof with the next Office communication.

All of the presently-pending claims in this application are now believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

Customer Number

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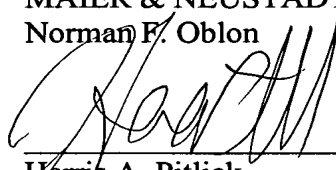
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